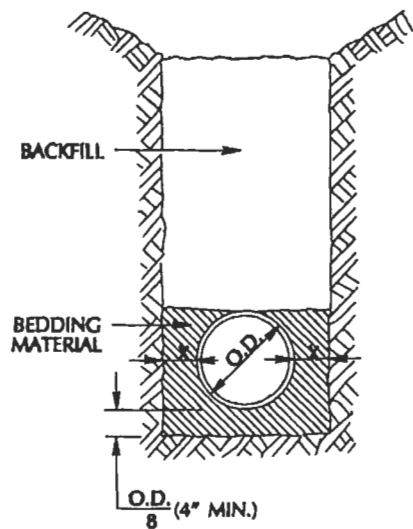
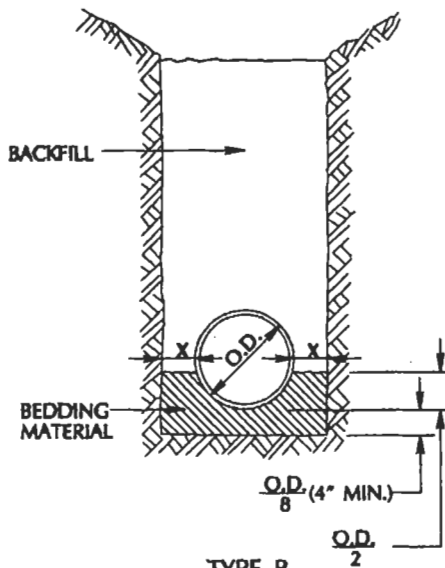


TYPE A

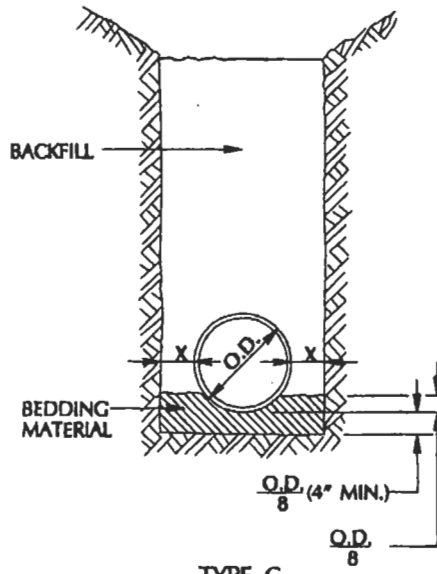


TYPE AO

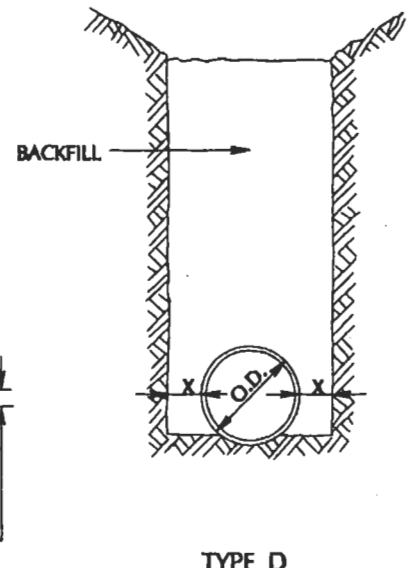
PIPE SIZE	LIMITS OF X	
	MINIMUM	MAXIMUM
24" OR LESS	4"	$4" + \frac{O.D.}{4}$
27" AND GREATER	6"	$6" + \frac{O.D.}{4}$



TYPE B



TYPE C



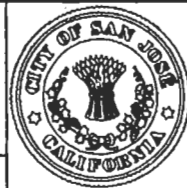
TYPE D

APPROVED BY  
*MKD*

DATE  
*4/1/92*

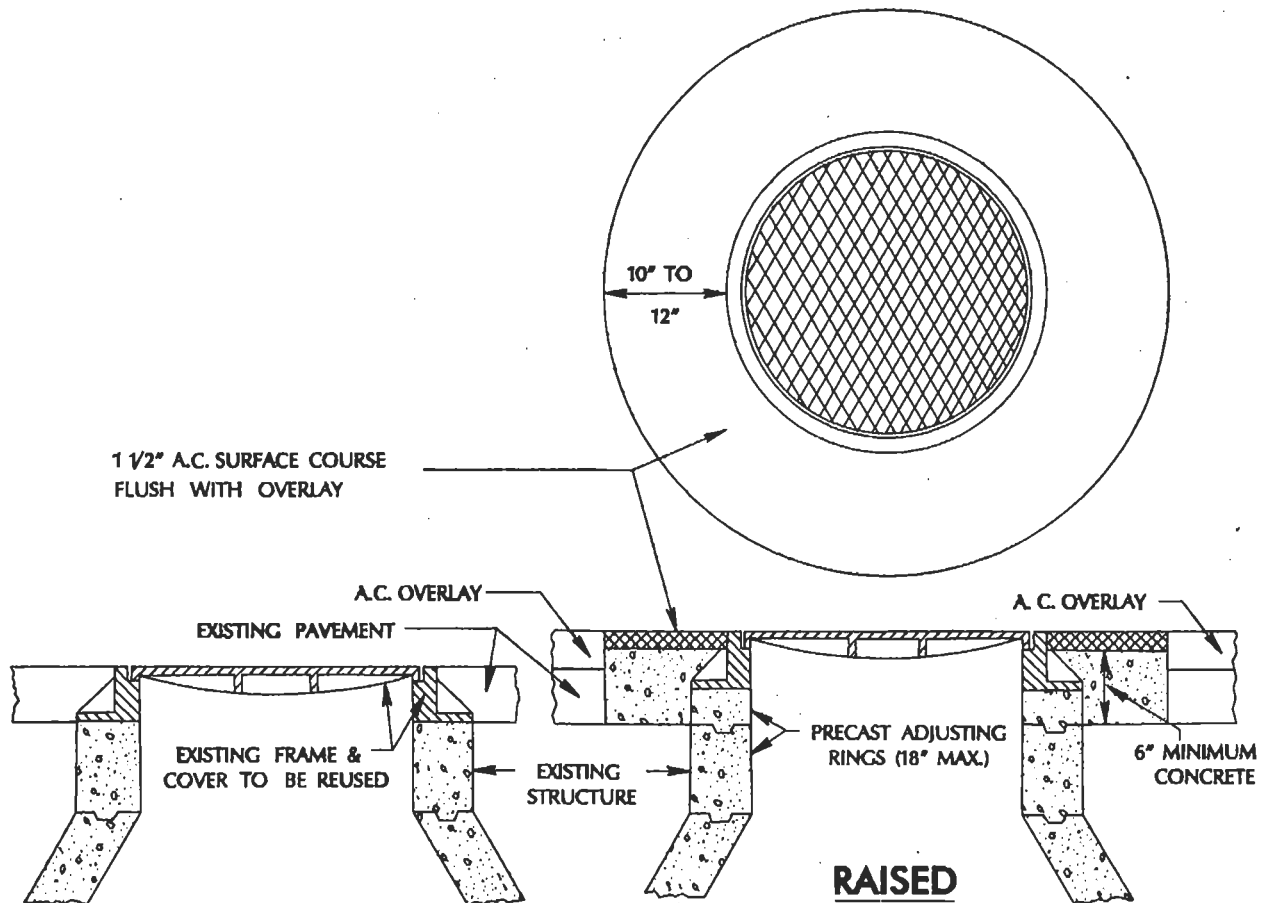
## PIPE BEDDING - TYPES

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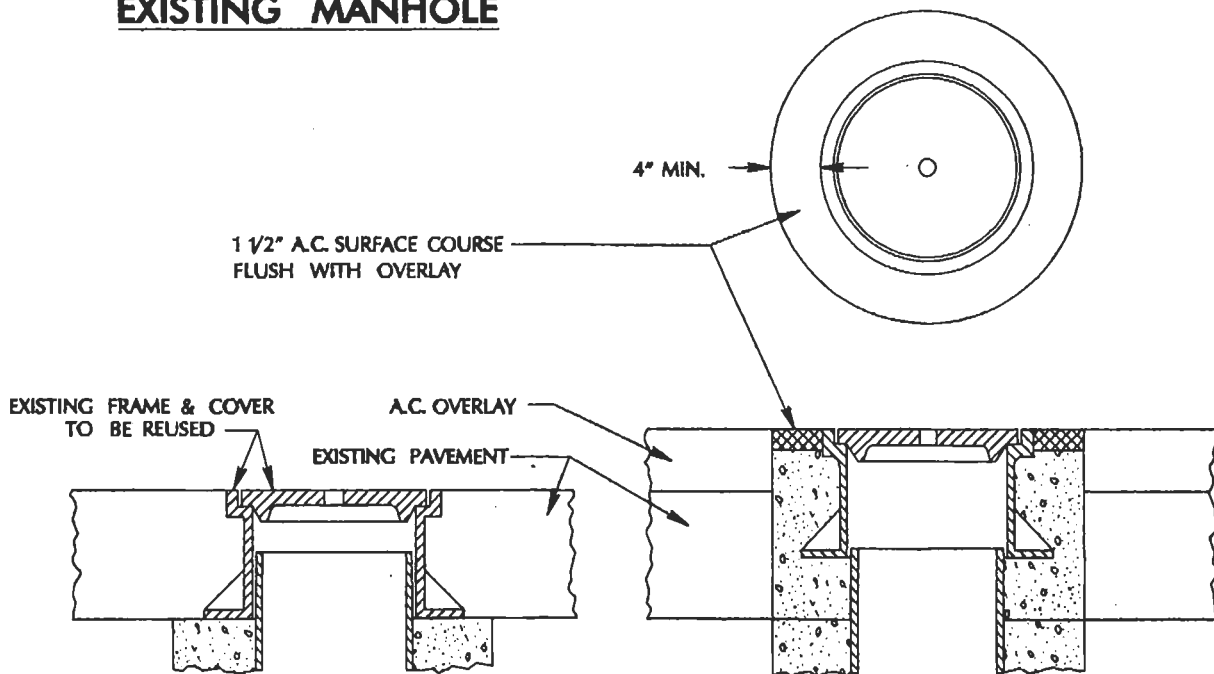


DRAWING NO.

D-1



**EXISTING MANHOLE**



**EXISTING VALVE**

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*M.R.D.*

DATE

*4/1/92*

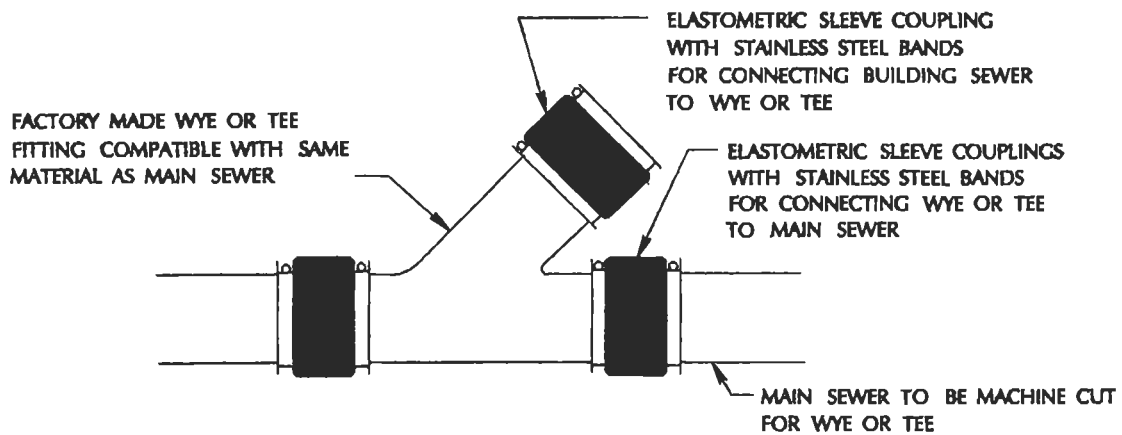
# MANHOLE / VALVE CASTING ADJUSTMENT DETAIL

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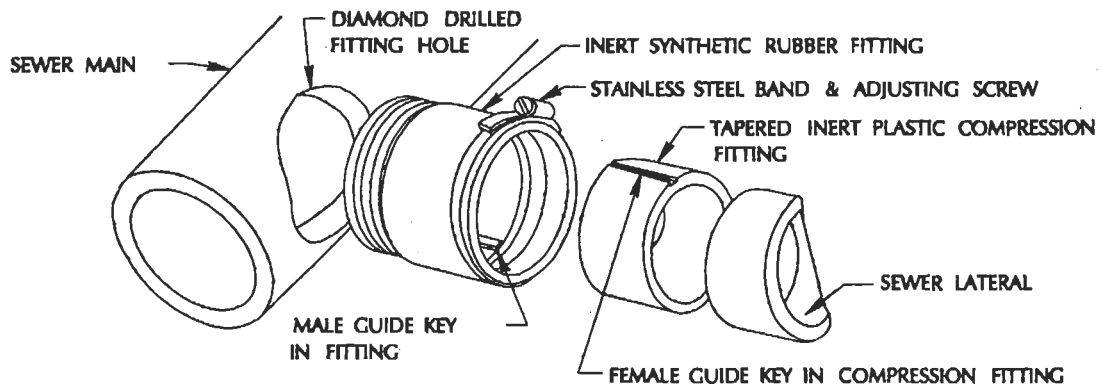


DRAWING  
NO.

D-2

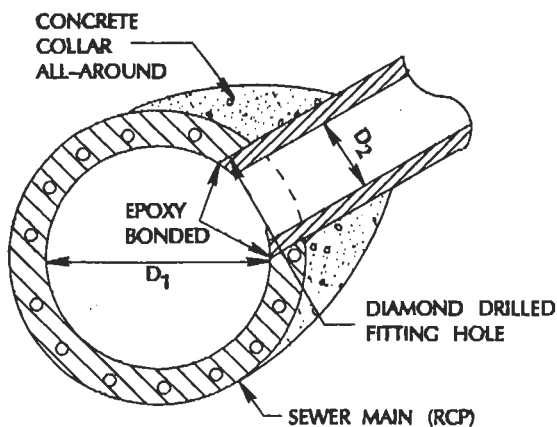


### INSERTION OF FACTORY MADE WYE OR TEE



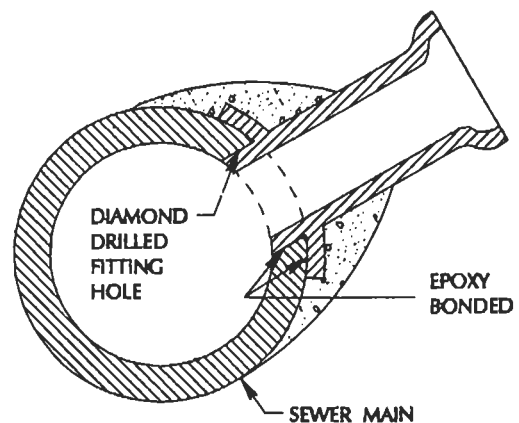
### SYNTHETIC RUBBER WEDGED INSERT TEE

(MIN. DIFFERENTIAL OF TWO SIZES REQUIRED)



### TEE TAP (RCP)

$$D_1 \geq 2.5 D_2$$



### TEE SADDLE TAP (VCP)

APPROVED BY

Y.Y.

DATE

4/1/92

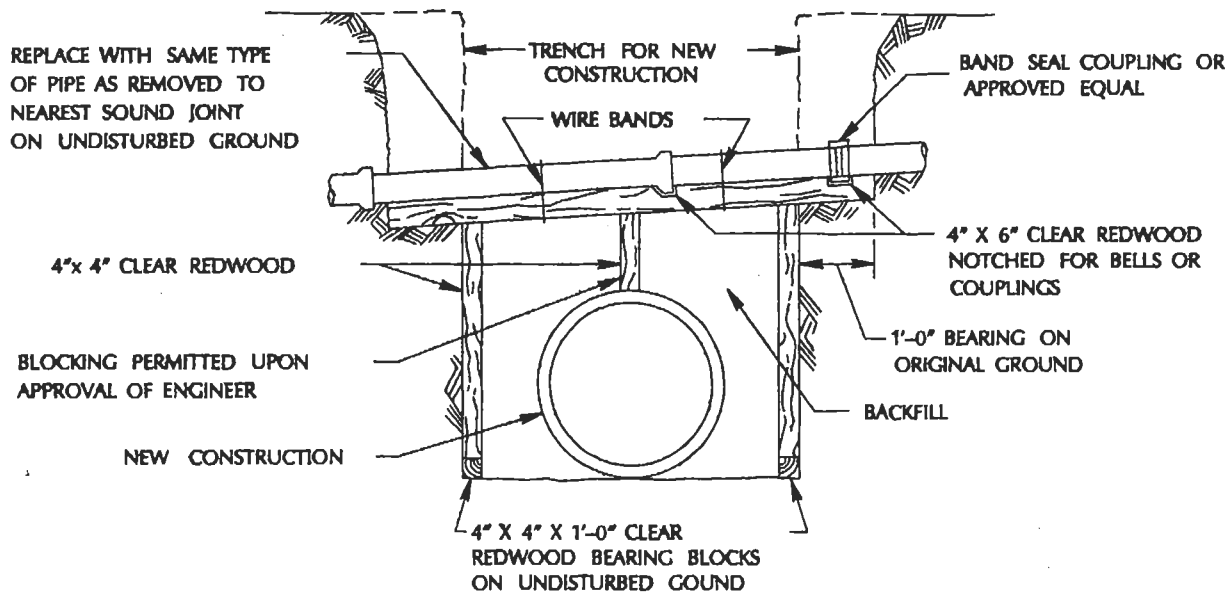
## SIDE SEWER/LATERAL FITTINGS TO EXISTING MAINS

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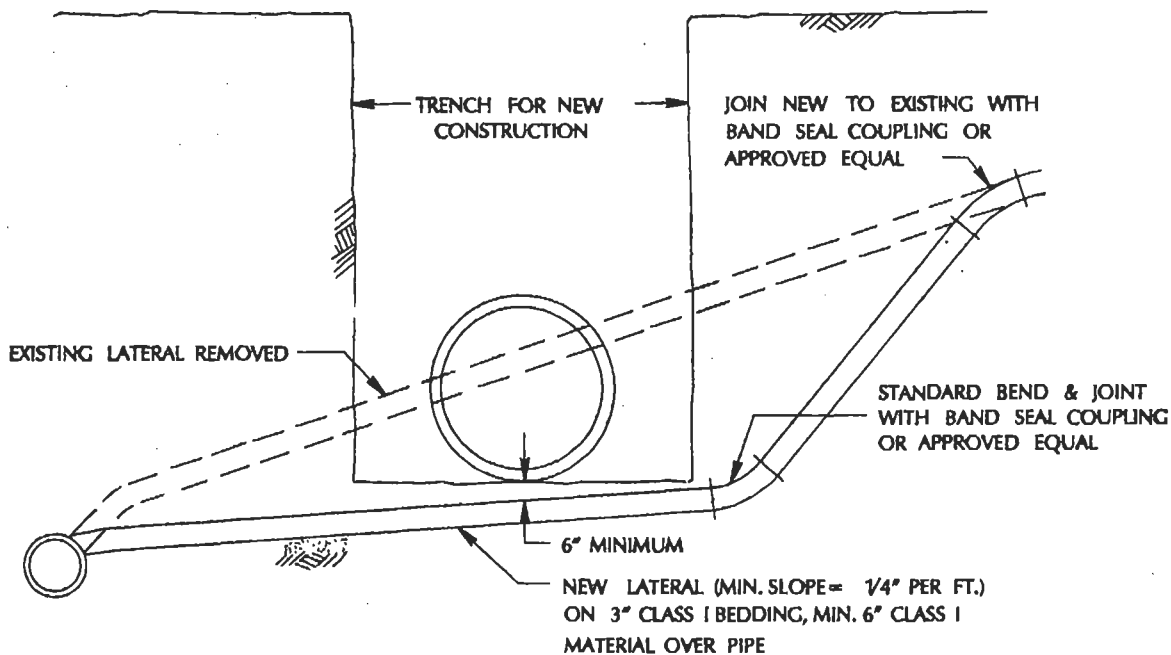


DRAWING  
NO.

D-3



SIDE SEWER LATERAL SUPPORT OVER NEW CONSTRUCTION



SIDE SEWER LATERAL RELOCATION OPTION UNDER NEW CONSTRUCTION

APPROVED BY:

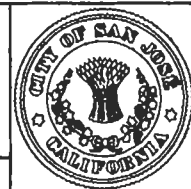
*[Signature]*

DATE

4/1/92

## LATERAL SUPPORT & REPLACEMENT

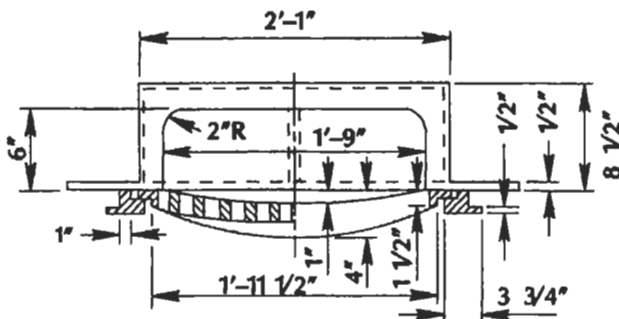
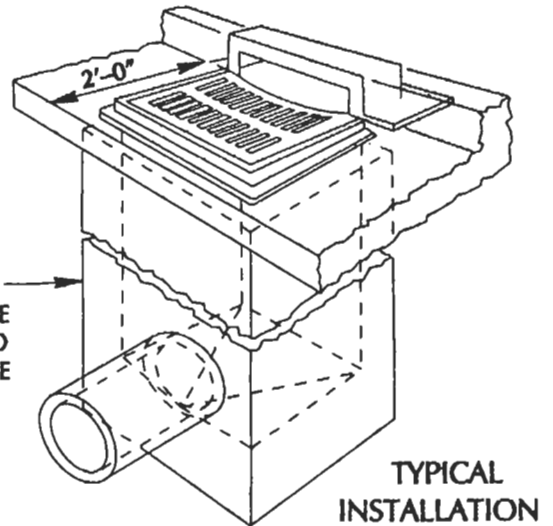
DEPARTMENT OF PUBLIC WORKS



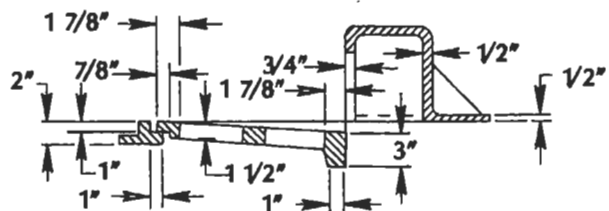
DRAWING NO.

D-4

FOR BOX -  
DETAILS SEE  
"STANDARD  
FLAT GRATE  
INLETS"



### REGULAR HOODED INLET



**SECTION A-A**

**APPROVED BY**

VVRT

DATE \_\_\_\_\_

4/1/92

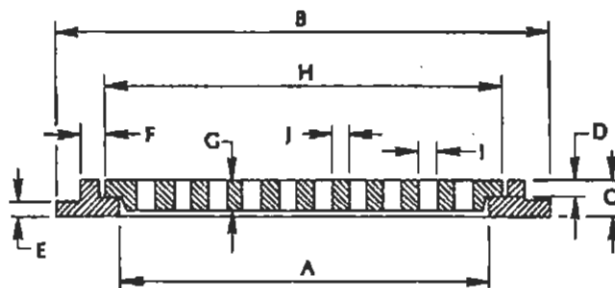
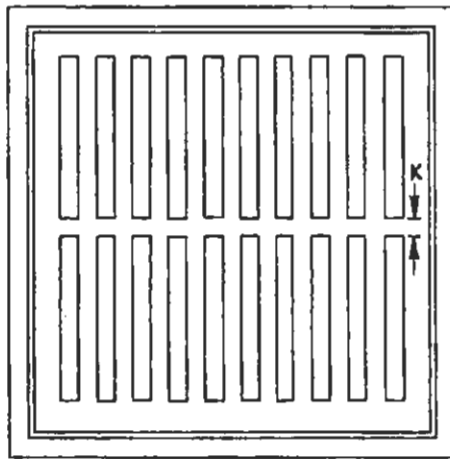
## REGULAR HOODED INLETS

DEPARTMENT OF PUBLIC WORKS



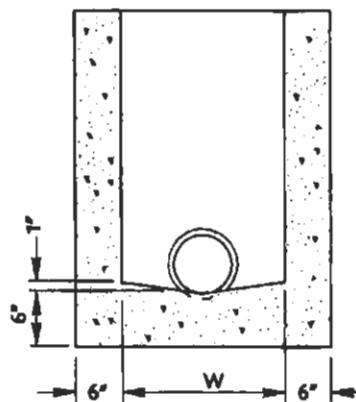
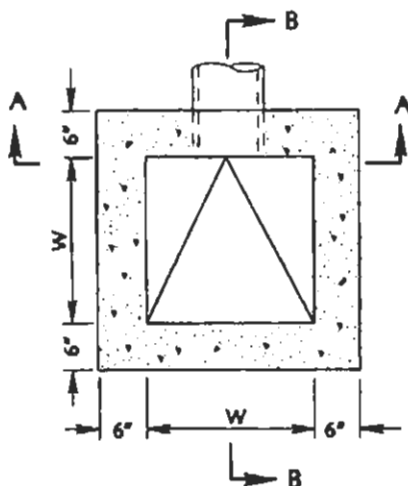
**DRAWING  
NO.**

**D-5**

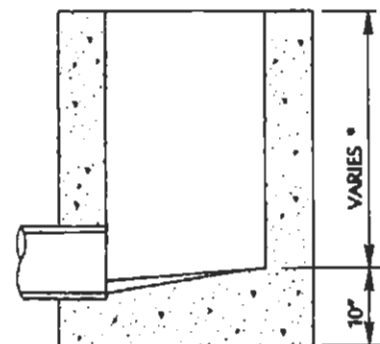


FRAME & GRATE TYPE	A	B	C	D	E	F	G	H	I	J	K	NO. OF RIBS	FLOW AREA
REGULAR FLAT GRATE INLET	24"	30"	2"	1"	1"	3/4"	2"	26"	1"	1"	1 1/4"	10	223 SQ.IN.
LARGE FLAT GRATE INLET	36"	42"	3"	1"	1"	3/4"	2 1/2"	38"	1"	1 1/4"	1 1/2"	15	490 SQ.IN.

#### GRATE & FRAME



SECTION A-A



\* 3'-0" TO 3'-6"

SECTION B-B

FRAME & COVER TYPE	W
REGULAR FLAT GRATE AND HOODED INLETS	24"
LARGE FLAT GRATE AND HOODED INLETS	36"

#### CONCRETE BOX

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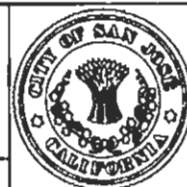
*W.R.D.*

DATE

*4/1/92*

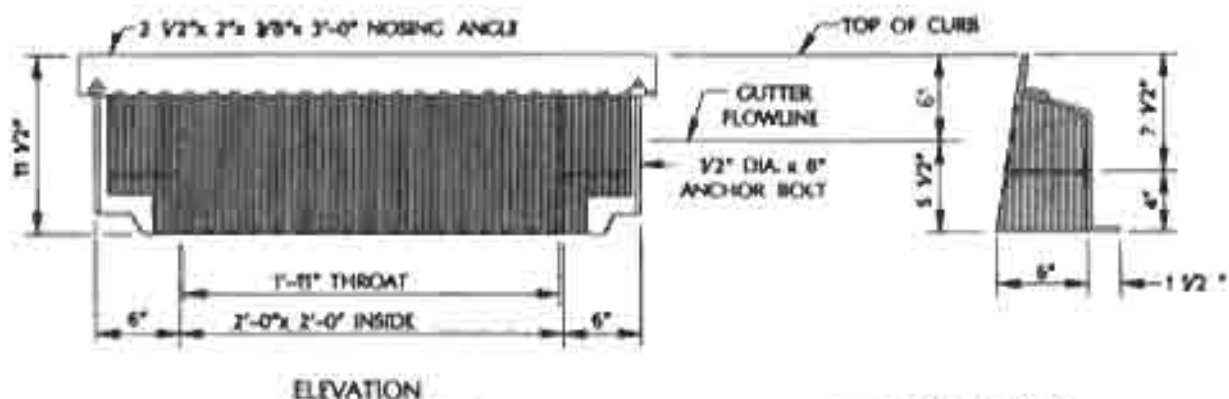
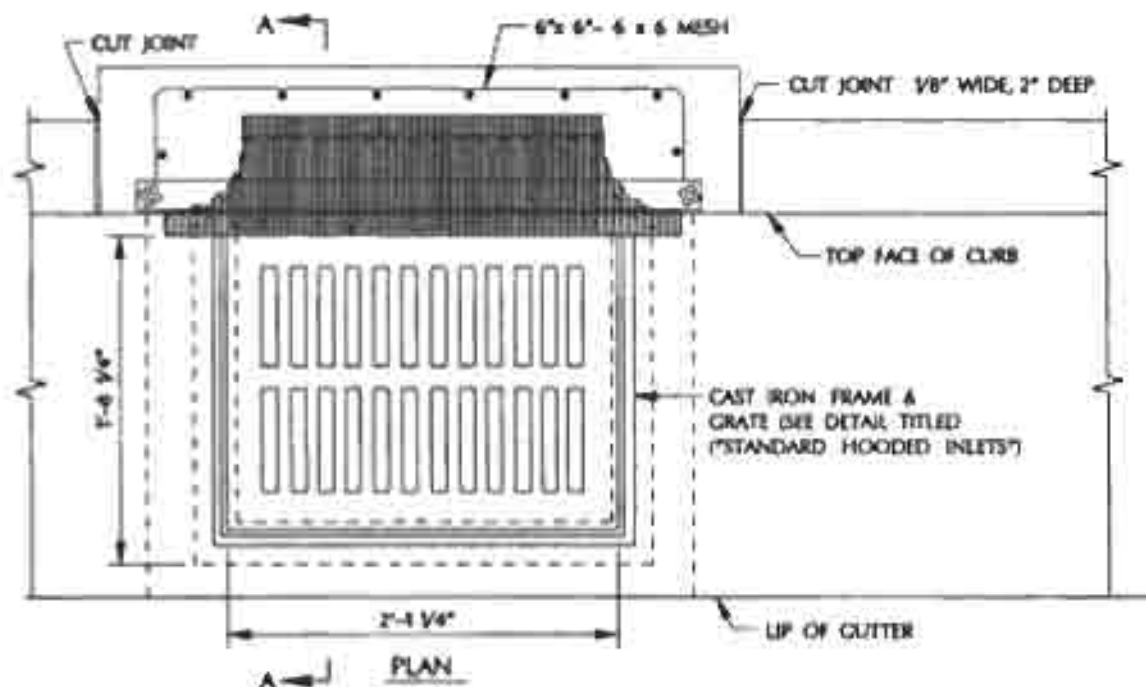
## STANDARD FLAT GRATE INLETS

DEPARTMENT OF PUBLIC WORKS



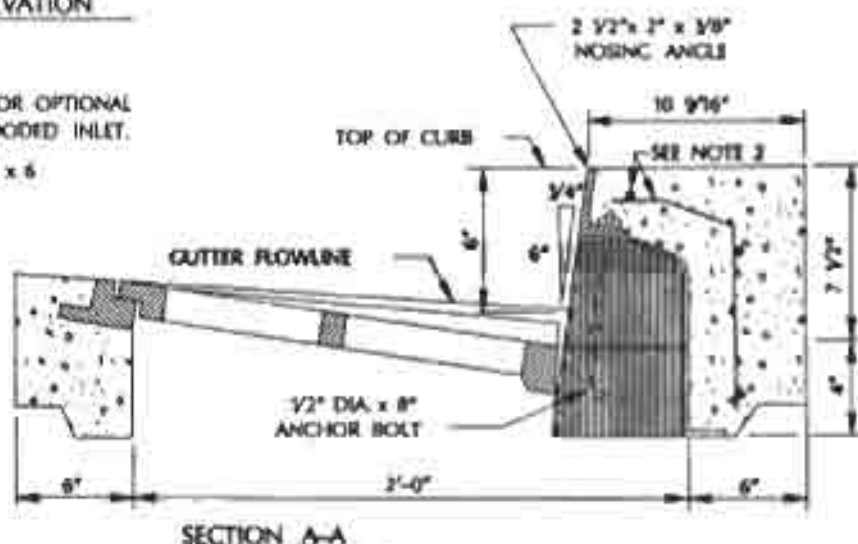
DRAWING  
NO.

D-6



#### NOTES:

1. FIBERGLASS LINER ASSEMBLY IS FOR OPTIONAL USE INSTEAD OF STANDARD HOODED INLET.
2. WELDED WIRE MESH 6" x 6" - 6 x 6 IS REINFORCING.
3. FIBERGLASS LINER INDICATED THUS-



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*MRD*

DATE  
*4/1/92*

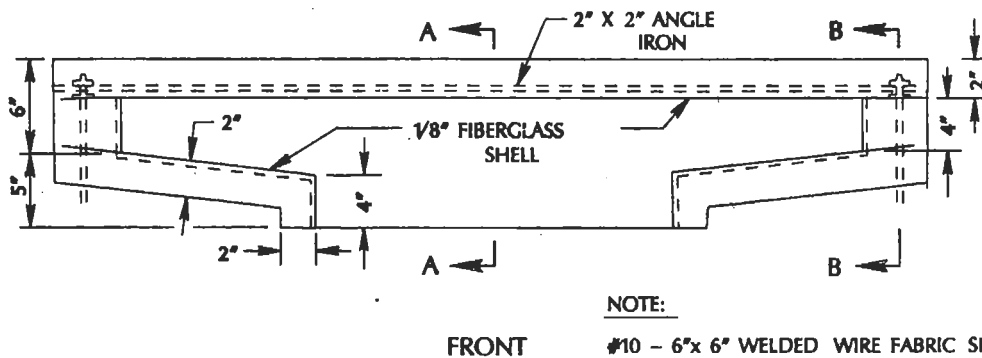
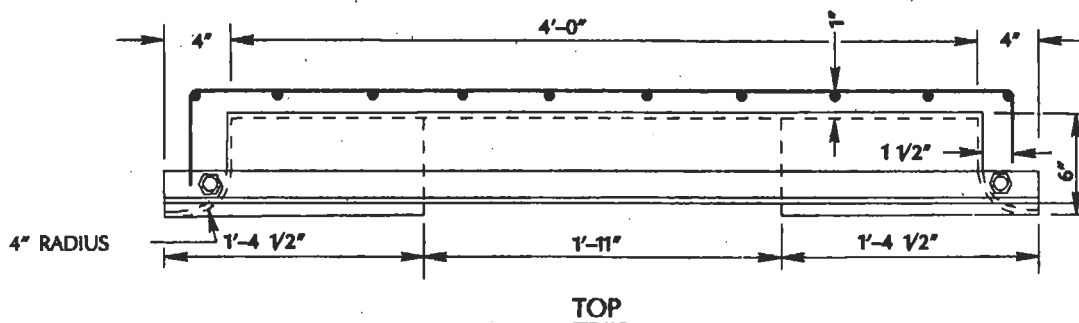
## FIBERGLASS LINER ASSEMBLY OPTIONAL STANDARD INLET HOOD

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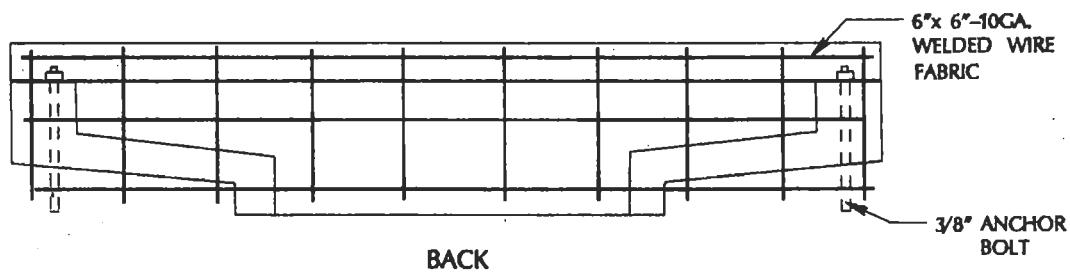
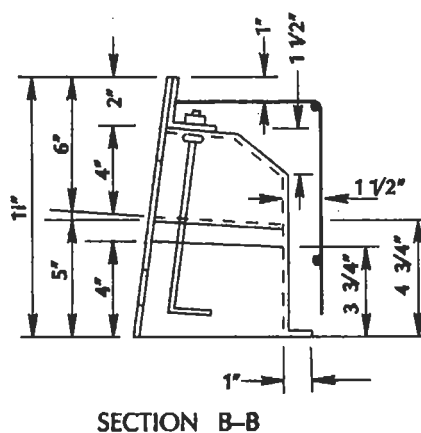
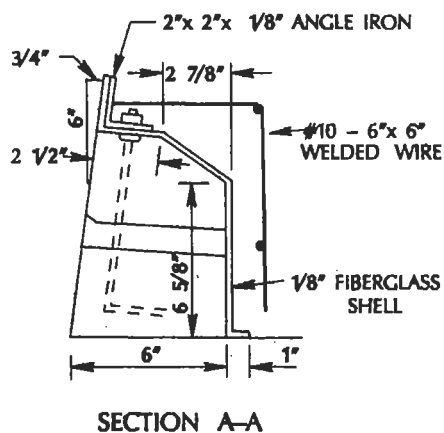
DRAWING NO.

D-7



**NOTE:**

#10 - 6"x 6" WELDED WIRE FABRIC SHALL BE SECURELY ATTACHED AT 6" INTERVALS TO THE BACK OF THE 2"x 2" ANGLE IRON



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*MRD*

DATE

*4/1/92*

**FABRICATION DETAIL  
FIBERGLASS LINER ASSEMBLY GALLERY**

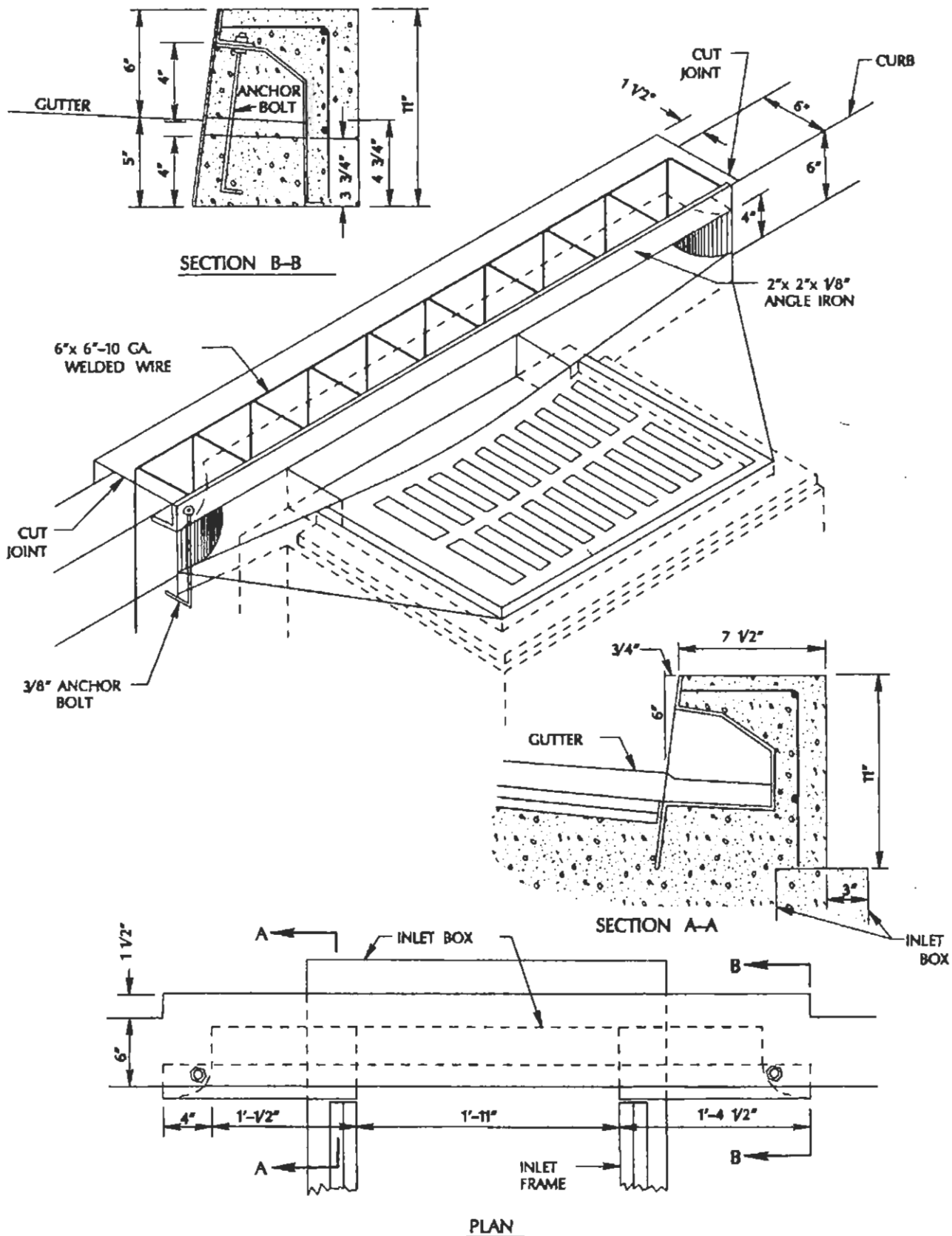
DEPARTMENT OF PUBLIC WORKS



DRAWING NO.

**D-8**





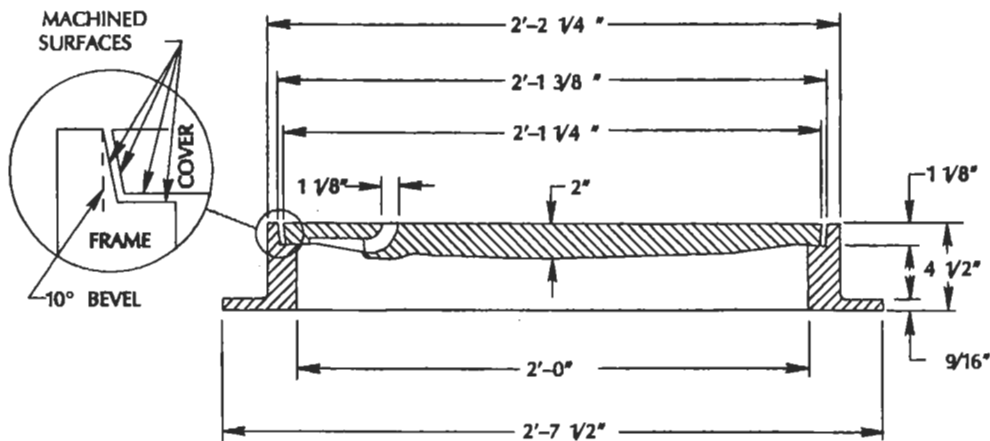
APPROVED BY  
*W/RD*  
 DATE  
*4/1/92*

# INSTALLATION DETAIL FIBERGLASS LINER ASSEMBLY GALLERY

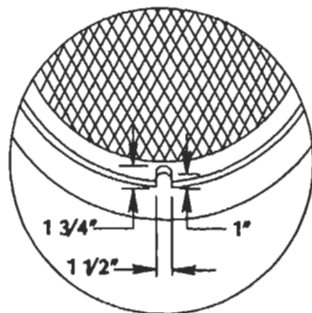
DEPARTMENT OF PUBLIC WORKS



DRAWING NO.  
**D-9**



- NOTES:
1. MINIMUM WEIGHT OF SET 290 LBS.
  2. CAST IRON SHALL BE ASTM A-48 CLASS 35B.
  3. WHERE BOLT DOWN COVERS ARE CALLED FOR ON THE PLANS, ADD BOSSES TO FRAME (4 EA. @ 90°), SEE DETAIL.
  4. MANUFACTURER SHALL CERTIFY MATERIAL, WEIGHT AND DIMENSIONS.
  5. MANUFACTURER TO CERTIFY THAT FRAME AND COVER MEET ALL LOAD REQUIREMENTS FOR H-20 HIGHWAY LOADING.



1/8" FLAT NEOPRENE GASKET

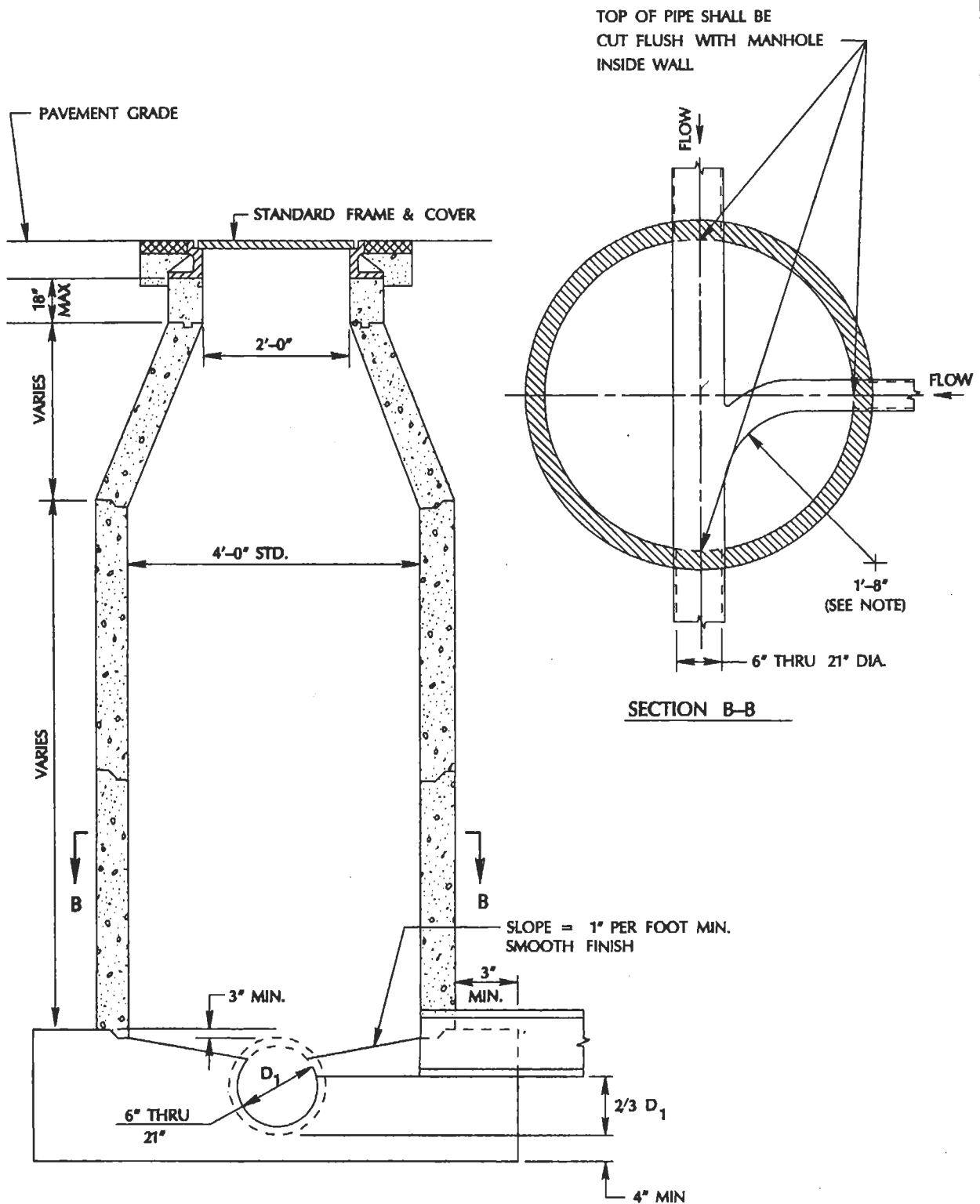
4 3/8" HEX-HEAD STAINLESS STEEL BOLTS

ADDED BOSS

1"

DETAIL - NOTE 3

D-10



**NOTE:** FOR CHANNELIZATION OF INTERCEPTING LINES, PROVIDE SMOOTH TRANSITIONS (APPROX. 1'-8" INSIDE RADIUS) TOWARDS DOWNSTREAM FLOW OF MAIN.

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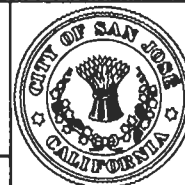
*MRD*

DATE

*4/3/92*

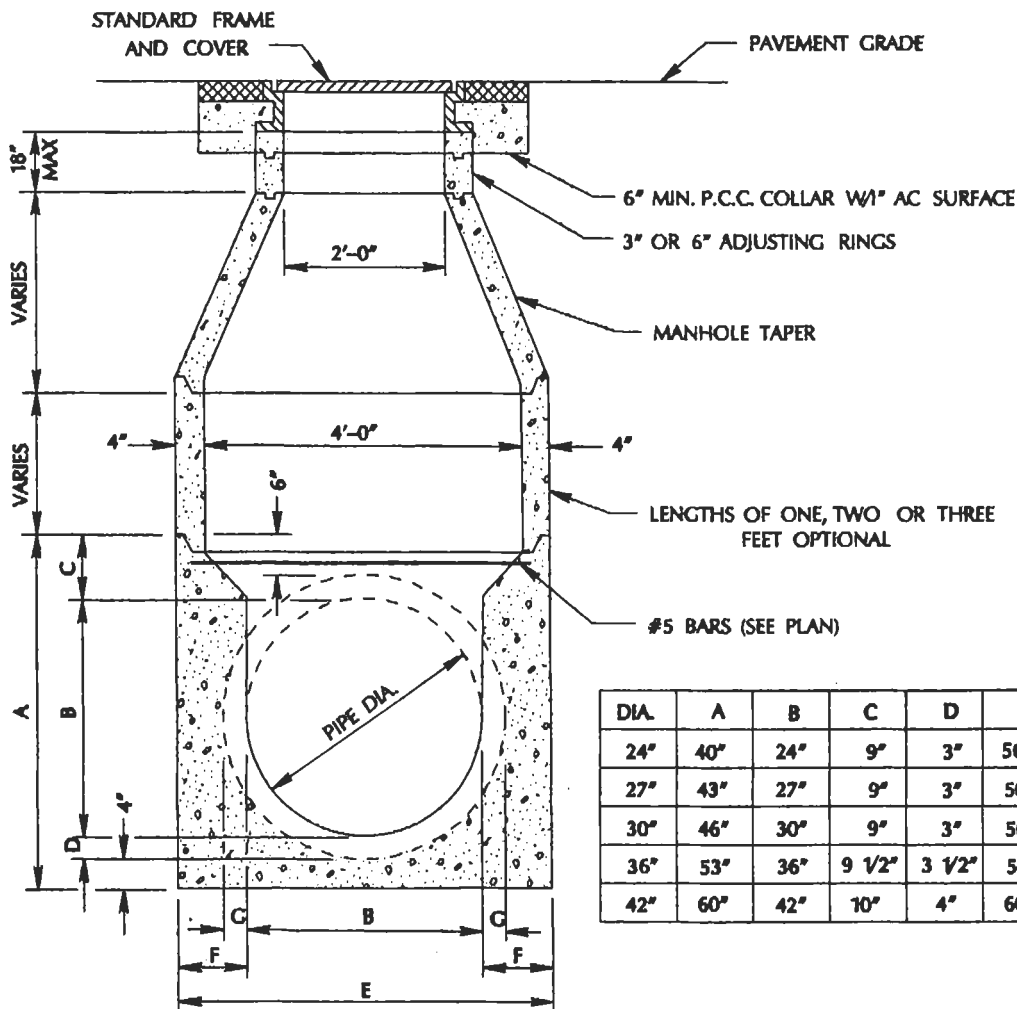
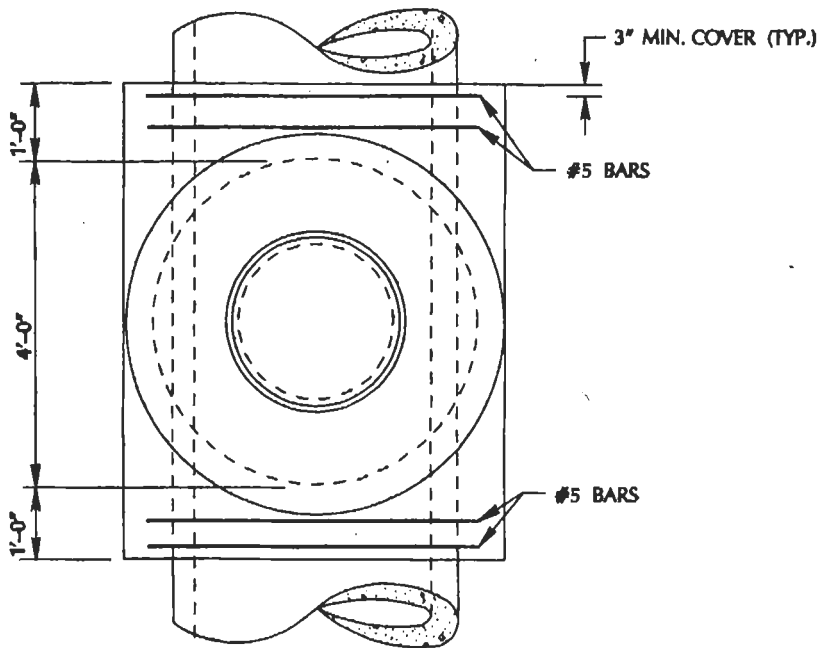
# STANDARD MANHOLE 21" DIAMETER & SMALLER PIPE

DEPARTMENT OF PUBLIC WORKS



DRAWING  
NO.

D-11



DIA.	A	B	C	D	E	F	MIN. G
24"	40"	24"	9"	3"	56"	16"	3"
27"	43"	27"	9"	3"	56"	14 1/2"	3"
30"	46"	30"	9"	3"	56"	13"	3"
36"	53"	36"	9 1/2"	3 1/2"	56"	10"	3 1/2"
42"	60"	42"	10"	4"	60"	9"	4"

APPROVED BY

*MRD*

DATE

*4/1/92*

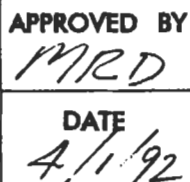
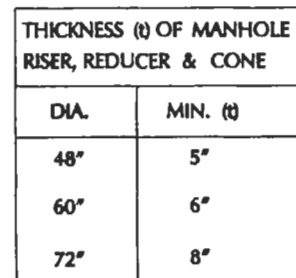
# STANDARD CONCENTRIC MANHOLE, 24" THRU 42" DIAMETER PIPE

DEPARTMENT OF PUBLIC WORKS



DRAWING  
NO.

D-12



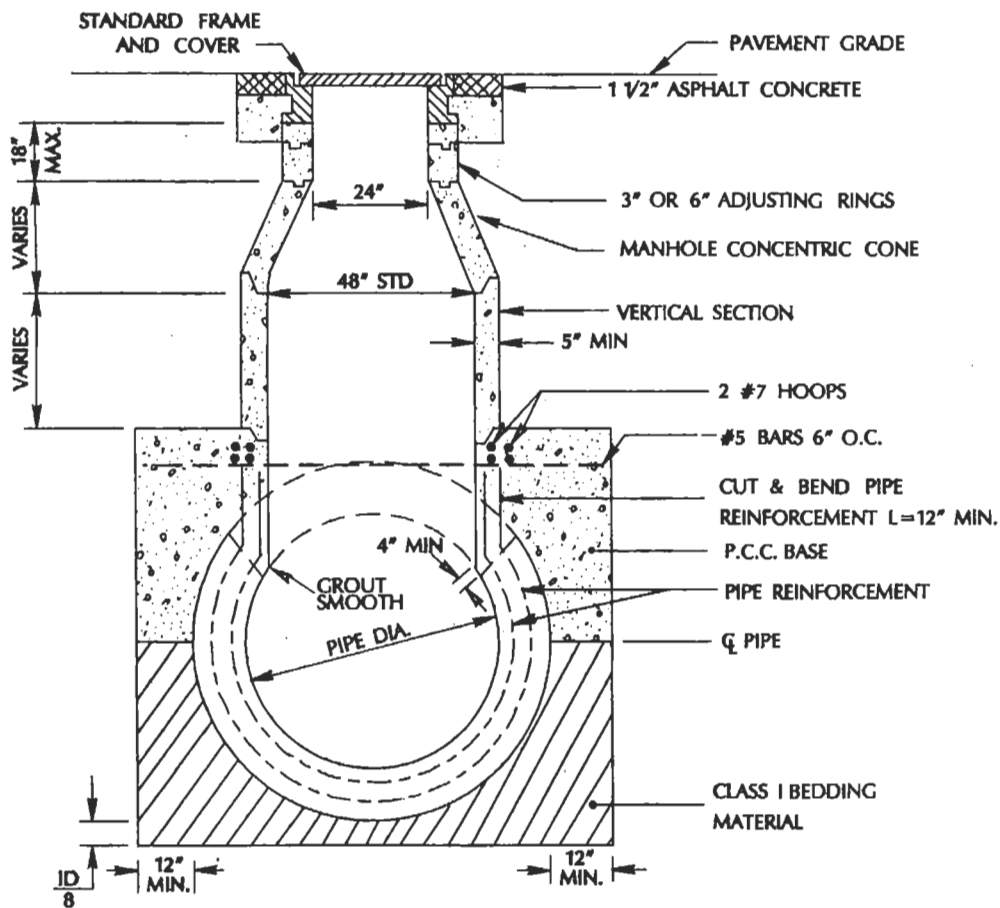
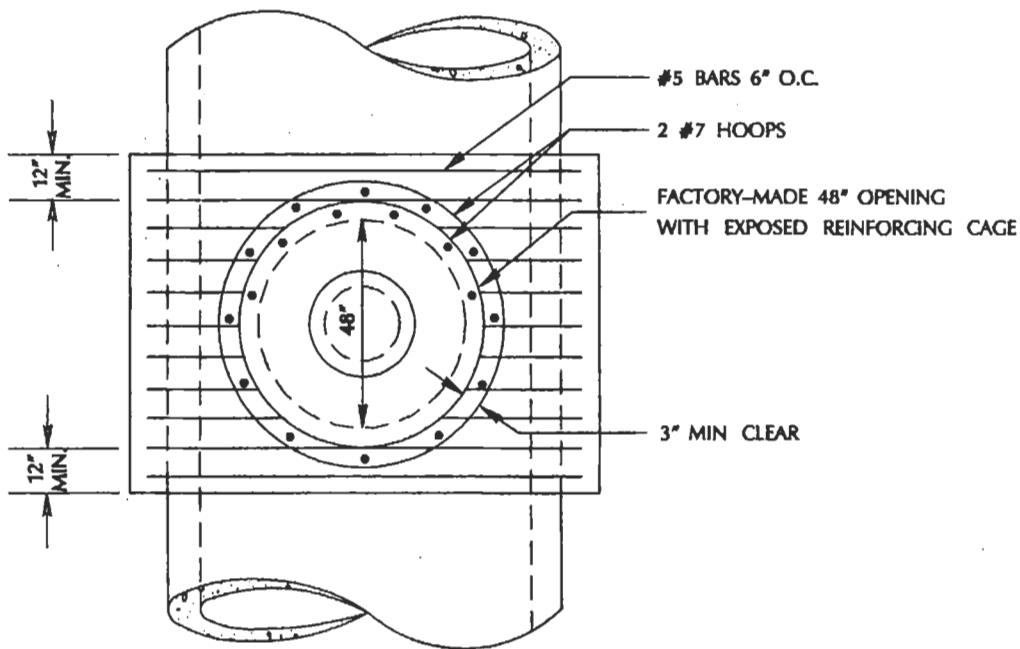
## CONCENTRIC MANHOLE, 48" TO 72" DIAMETER PIPE

DEPARTMENT OF PUBLIC WORKS



**DRAWING  
NO.**

**D-13**



APPROVED BY

MRD

DATE

4/1/92

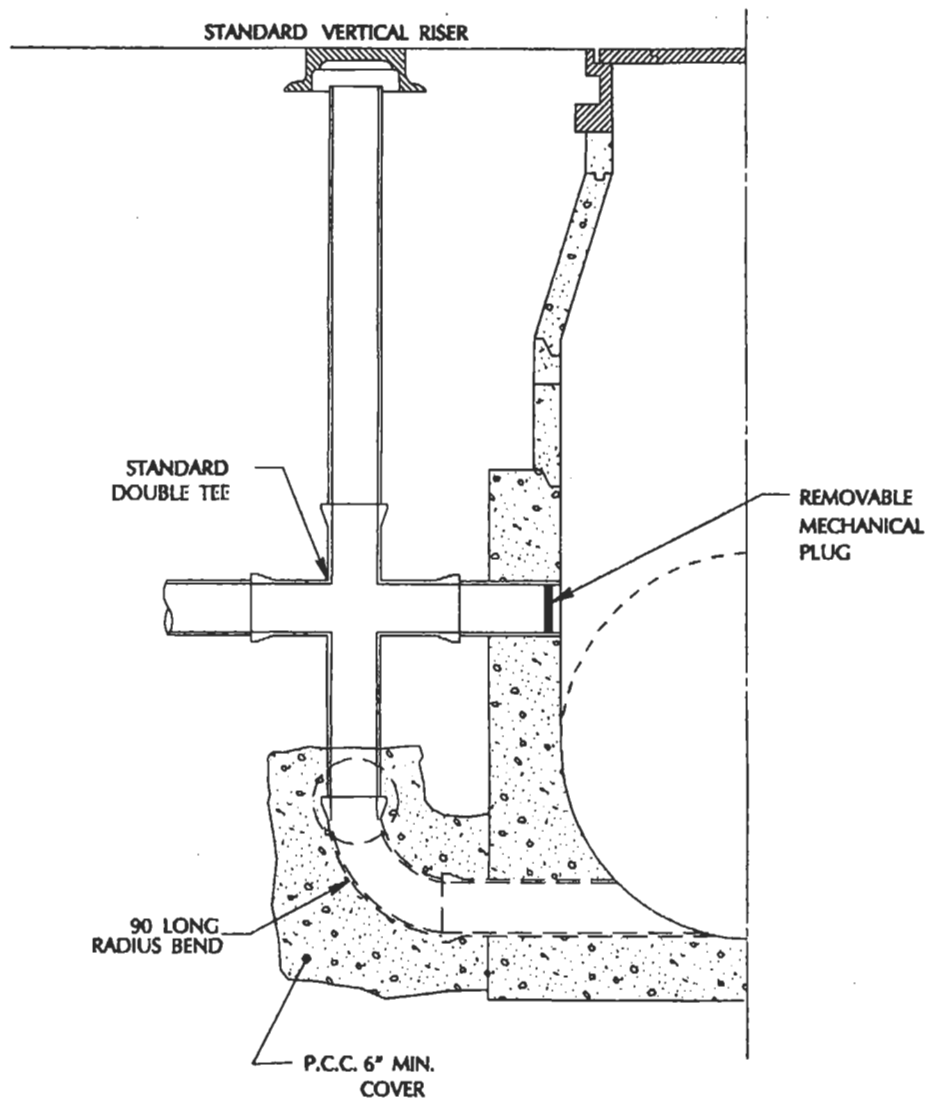
# CONCENTRIC MANHOLE, 78" DIAMETER & LARGER PIPE

DEPARTMENT OF PUBLIC WORKS



DRAWING  
NO.

D-14



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*JWS*

DATE

*4/1/92*

## DROP MANHOLE CONNECTION

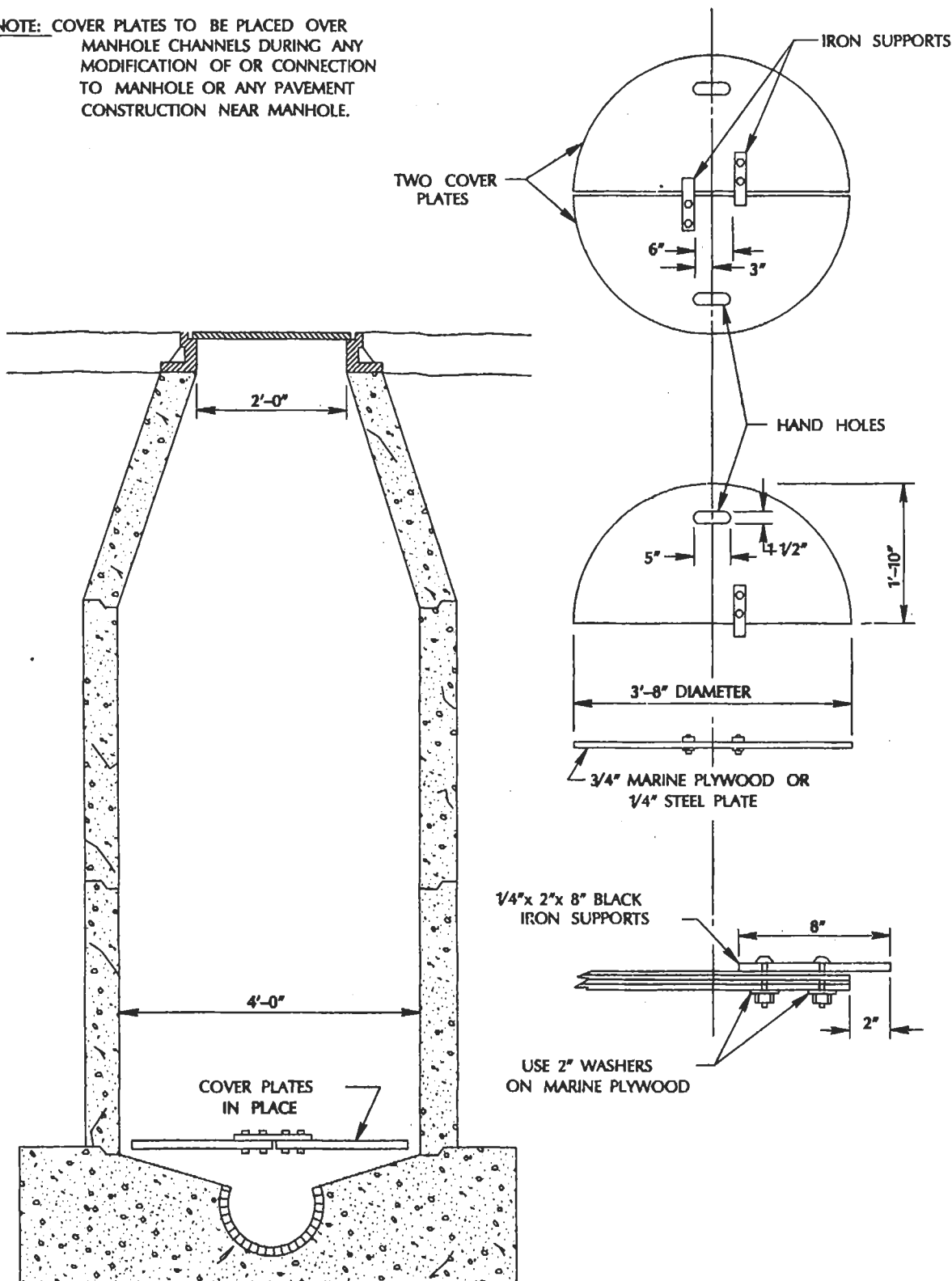
DEPARTMENT OF PUBLIC WORKS



DRAWING  
NO.

D-15

**NOTE:** COVER PLATES TO BE PLACED OVER MANHOLE CHANNELS DURING ANY MODIFICATION OF OR CONNECTION TO MANHOLE OR ANY PAVEMENT CONSTRUCTION NEAR MANHOLE.



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*ms*

DATE

12-17-91

## COVER PLATES FOR MANHOLE CHANNELS

DEPARTMENT OF PUBLIC WORKS

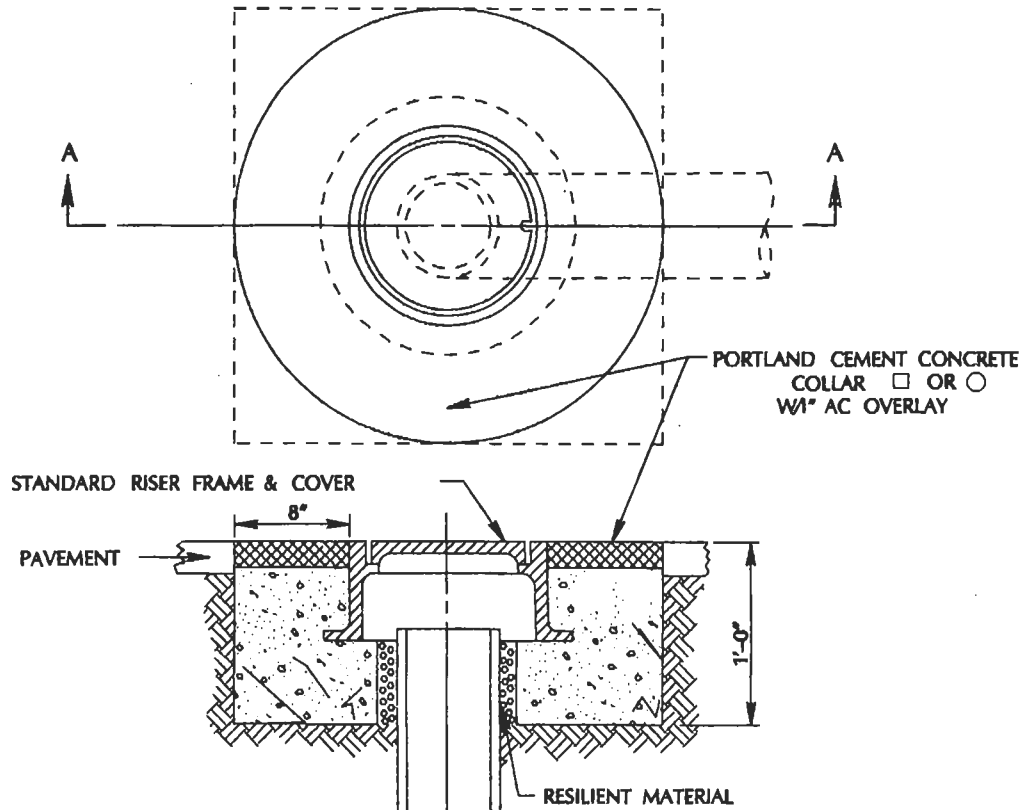


DRAWING  
NO.

D-16



TOP VIEW



SECTION A-A

(WITH 90° LONG RADIUS BEND)

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*[Signature]*

DATE

02-17-81

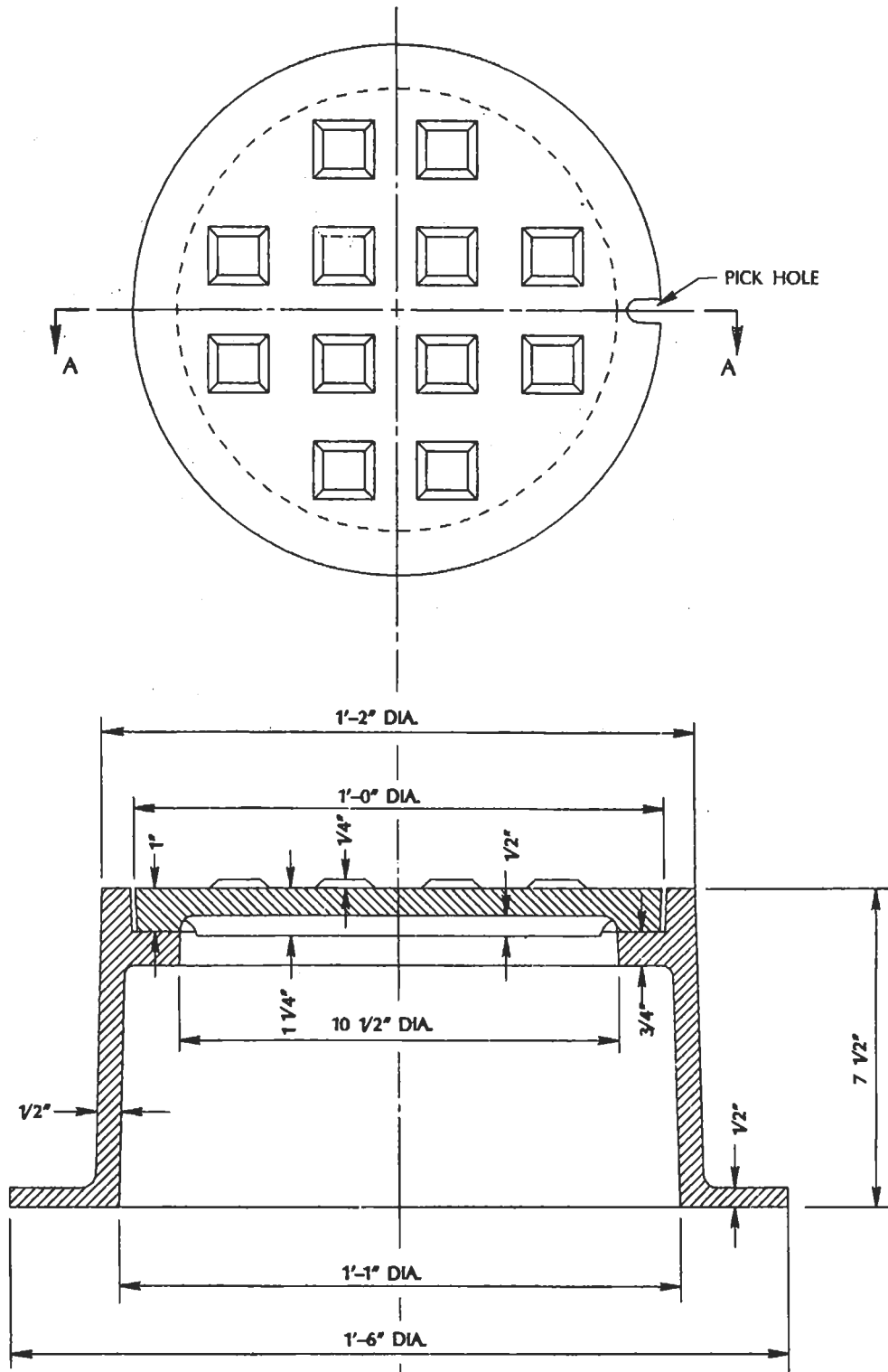
STANDARD VERTICAL RISER

DEPARTMENT OF PUBLIC WORKS



DRAWING NO.

D-17



SECTION A-A

NOTE: WEIGHT 110 LB. (APPROX.)

APPROVED BY

*[Signature]*

DATE

12-17-91

# STANDARD RISER FRAME AND COVER

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DRAWING NO.

D-18